

REMARKS/ARGUMENTS:

This amendment cancels claim 30, leaving claims 1-5, 19, 21-22 and 25-29 pending.

In the final Office Action dated June 22, 2006, the Examiner has rejected all claims save claims 26 and 30 as anticipated by Yamagami (US Pub. 2003/0233518), asserting that Yamagami teaches continuous polling or continuous querying at para 0089, 0141, 0144-0148 and 0151. Claims 26 and 30 were rejected as obvious over Yamagami in view of Yanai.

Summary of Interview:

A telephone interview was conducted on August 3, 2006 among the undersigned representative, Examiner Phuong-Thao Cao, and Primary Examiner Luke Wassum. The undersigned agrees with the summary filed by the Primary Examiner dated August 8, 2006, with the following further detail. A distinction was discussed between monitoring content of a database and mirroring that content, and monitoring a physical layout of a memory that stores the database content.

Remarks:

Claim 1 recites in relevant part:

wherein the software agent is further for, while conforming the second storage configuration to mirror the first storage configuration, querying a state of the conforming for one of a proper configuration of the first or second storage configurations or a failure of a link over which the second storage configuration is received or the change to be made is transmitted.

The claim term “conforming the second storage configuration” relates to physical/logical layout of the storage medium to which content is to be copied. This meaning is evident in both the written description and in dependent claims.

Specifically, dependent claim 2 recites that a storage configuration parameter is database layout, LUN type, LUN size, or a measure of LUN performance or reliability. Each of these are independent of content stored in those LUNs or database. Dependent claim 4 recites that “conforming ...comprises *creating* a secondary LUN based on at least one of a LUN type and a LUN size” (emphasis added), again independent of stored content. Dependent claim 25 recites that , responsive to a determination from the *querying of an improper configuration*, steps of evaluating remote mirror LUNs based on size, type, performance and reliability to

find a suitable LUN, and creating a suitable remote mirror LUN, (emphasis added), wherein the emphasized terms clearly relate to physical layout of storage medium, not to content. Yamagami's cited teachings related to monitoring are seen to relate to underlying content.

Respecting the written description, the background section at page 1 line 23 to page 2 line 21 clearly stipulates that configuration relates to physical layout of the database and creating/choosing appropriate LUNs for mapping, separate and distinct from the "final step" at page 3 lines 5-6 of creating a task to establish remote mirroring from each source to each target. As is clear at page 7 line 22 to page 8 line 20, mirroring the configuration relates to physical database layout (emphasis added):

The remote agent 30a receives the *physical database layout* 22 from the local agent 20a at the local site 20 *and then mirrors the identical configuration* on the remote site 30. (page 8 lines 8-10);

For example, *changes that require re-configuration* include, but are not limited to, *a new volume added to the database, volume(s) removed from the database, and the database is moved to different volumes* for performance or other reasons. Further changes that require reconfiguration include an *error condition that causes a different or backup volume to be used*. (page 8 lines 15-20).

None of the configuration or reconfiguration described in the above portions of the written description relate to stored *content*, but to the *physical aspects* of a storage medium.

Yamagami is not seen to "query a state of the conforming for one of a proper configuration of the first or second storage configurations" as recited in claim 1, when that term is interpreted consistent with the written description and the dependent claims as detailed above.

Claim 19 recites in relevant part:

"and querying a state of the mirroring *to determine a proper configuration* for an application or database;

if the application or database *is not configured properly to perform mirroring*, then:"

Since this explicitly recites "to determine a proper configuration", the above comments which characterize the term "configuration" apply mutatis mutandis to claim 19. To interpret the term "configure" of claim 19 as copying the underlying database content to a backup database copy appear inconsistent with the claim 19 term "configured properly to perform

mirroring”, which is further evidenced by the remaining “evaluating” and “creating” elements of claim 19 which recite LUN size, type, performance and reliability, not LUN content.

Claim 27 recites identically to the above-repeated portions of claim 19.

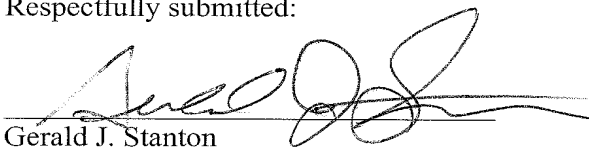
Yamagami is not seen to disclose “querying a state of mirroring” as relates to determining configuration.

The Primary Examiner’s summary notes a difference between one-time querying versus continuous. The above comments as well as the written description at page 2 line 13 to page 3 line 9 show that conforming a physical/logical storage configuration is necessarily a batch/discontinuous operation, because it has a distinct end: when the target configuration conforms to that of the source. A physically/logically conformed target is necessary before the underlying data content can be copied to that target. While one might continuously monitor for changes to database content or for changes to the physical layout of the source or target database, or even continuously copy the stored content to a properly configured remote database, once the ‘configuration’ or physical/logical layout of the source or target database changes, the source or target database must be evaluated and reconfigured as necessary prior to the underlying data content being copied. Querying a state of conforming physical/logical configurations of memory cannot be continuous, because eventually the storage configurations conform to one another. Once conformed, any further querying might be for new changes but is no longer a querying of the conforming, which is no longer ongoing. At page 11 lines 10-16, querying the state of configuration mirroring (block 124) determines whether to go to the polling mode (block 126) or to note a change (block 133) and possibly modify the remote site (block 134) with a new volume (block 136). The written description does not teach that querying a state of conforming configurations is a continuous operation, but rather that it may be invoked and re-invoked as necessary at those times when storage configurations, rather than the underlying stored content, are mirrored/conformed to one another.

Entry of this amendment is respectfully requested, as cancellation of claim 30 removes issues/claims for any potential appeal. The Applicant believes the above showing, consistent with the written description and dependent claims that necessarily instill meaning to terms of

independent claims, prove a patentable distinction over Yamagami. The Examiner is respectfully requested to review the rejection in view of the above comments, withdraw the rejections, and pass claims 1-5, 19, 21-22 and 25-29 to issue. The undersigned representative welcomes the opportunity to resolve any matters that may remain, formal or otherwise, via teleconference at the Examiner's discretion.

Respectfully submitted:


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August 21, 2006
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August 21, 2006
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